

REMARKS

Claims 1-17 are pending. Applicants respectfully submit that no new matter is presented herein.

Claims 1-4 and 6-17 are finally rejected under 35 U.S.C. § 103(a), as allegedly being rendered obvious by U.S. Patent No. 4,517,495 to Piepmeier in view of U.S. Patent No. 3,904,849 to Lucero *et al.* ("Lucero"). Claim 5 is finally rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Piepmeier in view of Lucero, as applied to Claims 1-4 and 6-12 above, and further in view of U.S. Patent Number 5,087,804 to McGaffigan. Applicants respectfully traverse both rejections.

To establish *prima facie* obviousness, three (3) criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to those of ordinary skill in the art, to modify the primary reference as proposed by the Office Action. Second, there must be a reasonable expectation of success in connection with the Office Action's proposed combination of the references. And third, the prior art references must disclose or suggest all of the claim features. See M.P.E.P. §2143.

Claim 1 recites a sample processing system for a plasma spectrometer for analyzing a viscous sample and/or a sample that is insoluble at room temperature including, among other features, "means for detecting a temperature of air adjacent to at least one of the **first pump tubing and the second pump tubing**, and means for heating the system, wherein the means for heating the system is configured to apply a first amount of heat to a first portion of the system **based at least on the temperature**

of the air adjacent to the at least one of the first pump tubing and the second pump tubing.”

The Office Action acknowledges that Piepmeier does not disclose or suggest detecting the temperature of air adjacent to at least one of the first pump tubing and the second pump tubing, and means for heating the system, wherein the means for heating the system is configured to apply a first amount of heat to a first portion of the system based at least on the temperature of the air adjacent to the at least one of the first pump tubing and the second pump tubing, as recited in Claim 1. Nevertheless, the Office Action asserts that “Lucero specifically teaches a temperature controller for controlling the temperature of a device where temperature stability is needed and also states that it is known in the art to provide a regulator or controller to provide the stability.” Office Action, Page 5, Lines 1-3. Moreover, the Office Action asserts that it would have been obvious to those of ordinary skill in the art at the time of the invention “to modify Piepmeier to include a temperature controller for regulating the temperature of the stream of sample material so that one could provide a system that has stable reaction conditions for a sample to be analyzed.” *Id.* at Lines 4-6. Moreover, the Office Action asserts that “regarding measuring air temperature, it is **inherent** that any temperature sensor can measure the air temperature.” *Id.* at Lines 6-8.

Applicants respectfully disagree with the assertions made by the Office Action for the following reasons.

In particular, Lucero describes a system for providing controlled mixing of a first fluid (a diffusion fluid) with a second fluid (a carrier fluid). In order to precisely control the mixing of the first fluid with the second fluid, the temperature of the second fluid and the

temperature of a permeation tube carrying the first fluid are regulated to achieve equilibrium. However, Lucero does not disclose or suggest detecting the temperature of air adjacent to any of the tubes included the system, as recited in Claim 1. Moreover, Lucero does not disclose or suggest applying a first amount of heat to at least a portion, e.g., the pump, of the system at least based on the temperature of such air, as recited in Claim 1.

As noted above, the Office Action asserts that the above-described features that are missing from each of Piepmeier and Lucero are “inherent” features because “it is inherent that any temperature sensor can measure the air temperature.” *Id.* at Lines 6-8.

Applicants respectfully, but forcefully, assert that the Office Action has not satisfied the burden of establishing that the features of the claimed invention that are missing from each of Piepmeier and Lucero “inherently” are disclosed by Lucero.

Specifically, according to the Manual of Patent Examining Procedures (“M.P.E.P.”), the Office Action must provide its rationale or evidence tending to show the alleged inherency. “The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic.” See M.P.E.P. §2112. “To establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference.” *Id.* “The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *Id.*

In this case, to establish the alleged “inherency” that the above-described limitations that are missing from each of Piepmeier and Lucero are suggested in Lucero, it is not sufficient for the Office Action to merely assert that, “it is inherent that any

temperature sensor can measure the air temperature.” Instead, the Office Action also must establish that it is “**necessarily present**” in Lucero that at least one of the temperature sensors described in Lucero measures the temperature of air.

Applicants respectfully submit that the Office Action has not, and cannot, satisfied such a burden in this case because it is clear from Lucero that only the temperature of the second fluid and the temperature of a permeation tube carrying the first fluid are measured, and it is not **necessary to obtain the temperature of air to measure these temperatures**. As such, the Office Action’s reliance on “inherency” to supply the features of the claimed invention that are missing from each of Piepmeier and Lucero clearly is improper.

Further, Applicants again submit that Lucero is not analogous art with respect to the present invention. Applicants respectfully note the Office Action did not address this issue, which Applicants addressed in the Response dated October 20, 2004. As stated in the October 20 Response, Applicants again point out that in order for Lucero to qualify as analogous art with respect to the present invention, Lucero must either (1) be in the same technical field as the present invention, or (2) address a similar problem as the present invention. Applicants respectfully submit that Lucero does not satisfy either of these requirements.

Specifically, Lucero and the present invention are not in the same technical field (electric fluid heating apparatus versus sample processing systems for a plasma spectrometer). Moreover, Lucero and the present invention do not address similar problems (the problems associated with maintaining fluid equilibrium when mixing together two fluids are substantially different than the problems associated with

analyzing viscous samples and/or samples that are insoluble at room temperature). The fact that both Lucero and the present invention both include temperature measurements (albeit different types of temperature measurements) is not sufficient to qualify Lucero is analogous art with respect to the present invention.

McGaffigan is applied for teaching it is known that a delrin box can be used as a receptacle. As such, McGaffigan does not overcome the above-discussed deficiencies of Lucero and Piepmeier.

As the Office Action has not established *prima facie* obviousness of Claim 1 for the numerous reasons discussed above and the fact that Lucero is not analogous art, Applicants respectfully request that Claim 1 is not rendered obvious in view of Piepmeier, Lucero and/or McGaffigan, either alone or in combination. Therefore, Applicants respectfully submit that Claim 1 is allowable and the rejection of Claim 1 be withdrawn.

Claims 2-17 depend from Claim 1. As such, it is respectfully submitted that these dependent claims are allowable for at least the same reasons Claim 1 is allowable, as well as for the additional subject matter recited therein.

Therefore, Applicants respectfully request that both rejections be withdrawn.

CONCLUSION

In view of the foregoing, reconsideration of the application, withdrawal of the outstanding rejections, allowance of Claims 1-17, and the prompt issuance of a Notice of Allowability are respectfully solicited.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing docket number 103120-00029.**

Respectfully submitted,
ARENT FOX PLLC



Murat Ozgu
Attorney for Applicants
Registration No. 44,275

Customer No. 004372

1050 Connecticut Avenue, NW, Suite 400
Washington, DC 20036-5339
Telephone: (202) 857-6000

MO/elp